

REMARKS

Claims 1-7 and 10-17 are pending in this application. By this Amendment, claim 1 has been amended. Support for the amendment to claim 1 is found at least at original claims 9, 18, and 19 and at page 9, line 34, page 10, lines 5-6, and at page 10, line 12, of the specification. Claims 8, 9, and 18-24 have been canceled without prejudice or disclaimer. No new matter has been added.

Claims 8 and 9 are rejected under 35 USC §112, second paragraph, because it is considered unclear whether the recitation of a water-soluble polymer (P) is the same as the water-soluble polymer or copolymer (A) recited in claim 1 or a different polymer.

Claims 8 and 9 have been canceled. Accordingly, this rejection is moot.

Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 2,838,421 to Sohl.

Claim 23 has been canceled. Accordingly, this rejection is moot.

Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by EP 0163151 to Dabi.

Claim 23 has been canceled. Accordingly, this rejection is moot.

Claims 18-20 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 4,126,595 to Martorano et al.

Claims 18-20 and 23 have been canceled. Accordingly, this rejection is moot.

Claims 1, 2, 5-17, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martorano.

Amended claim 1 recites, among other features, an acidic aqueous formulation having a pH of from 1 to 6 of a polymer. At least this features cannot reasonably be considered to be suggested by Martorano.

Martorano is directed at high-speed direct roll coating operations, such as metal decorating. At col. 3, lines 26-27, Martorano suggests an aqueous alkaline blend having a binder. However, an alkaline blend cannot reasonably be considered to correspond to the above-quoted features of amended claim 1.

Claim 1 further recites “at least one substantially noncrosslinked, water-soluble copolymer (A) comprising at least 50% by weight of (meth)acrylic acid” and “at least one comonomer which comprises acidic groups but is other than (meth)acrylic acid.”

Martorano suggest that component (A) of the binder is a copolymer consisting of (the sum is 100%) the following monomers:

- 1) 3 to 30 % by weight of an olefinically unsaturated monomer containing a carboxyl group, for example, acrylic acid;
- 2) at least on (meth)acrylic acid ester; and
- 3) optionally, other vinyl monomers.

Further, Martorano suggest that the copolymer is present as the salt of a volatile amine or ammonia.

With regard to component (B), Martorano suggests an oligomeric copolymer ($M_w = 400\text{--}600\text{ g/mol}$) consisting of:

- 1) at least one (meth)acrylic acid ester;

- 2) 9 to 50% of an olefinically unsaturated monomer containing a carboxyl group,
and
- 3) optionally, other vinyl monomers.

Applicants respectfully submit that neither component (A) nor (B) suggested in Martorano can reasonably be considered to correspond to instant copolymer (A) because Martorano fails to suggest a copolymer comprising at least 50% of (meth)acrylic acid and at least one further acidic monomer.

Additionally, Martorano merely suggests coatings that are used, for example, for decorating metals. Martorano fails to suggest that the compositions suggested therein are suitable for passivating surfaces.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,514,357 to Tada et al. in view of Martorano.

As appreciated by the Examiner, Tada fails to suggest a crosslinker as claimed. However, the Office Action asserts that it would have been obvious to combine the crosslinking agent of Martorano with the organic resin of Tada to provide desired crosslinking properties for a particular end use. The Office Action does not state to which particular end use the skilled artisan is directed by Martorano or Tada.

Moreover, the proposed modification would render Tada unsatisfactory for its intended purpose because Tada suggests, at col. 5, lines 22-28, that during the formation of the films, the presence of the essential metal ions Al^{3+} , Mg^{2+} , or Mn^{2+} results in the formation of dense, electrically conductive films, which are "different from the organic resin layer of a zinc-type plated steel sheet coated with a conventional organic resin." See Tada at col. 4, lines 26-28. However, by providing a crosslinking agent, as suggested by the Office Action, the film cannot be formed via the pseudo-crosslinking reactions because permanent crosslinkers are formed in their place, and the associated benefits, such as increased density of the coating, are forgone.

Claims 2-7 and 10-17 are in condition for allowance for at least their respective dependence on an allowable claim 1, as well as for the separately patentable subject matter that each of these claims recites.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 22-0185, under Order No. 12810-00237-US1 from which the undersigned is authorized to draw.

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Respectfully submitted,

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